

From: [R4LIMS](#)
To: [Berry, Chuck](#)
Cc: [Turner, Nardina](#); [Lkrebs@otie.com](#); [Saskowski, Ronald](#); [gkowsalski@otie.com](#); [Wellborn, Floyd](#); [Aker, Sandra](#)
Subject: R4 LIMS Results: Project 19-0243, E191706 PHYSP TMTL 05 09 19 1353
Date: Thursday, May 9, 2019 2:35:56 PM
Attachments: [E191706 PHYSP TMTL FINAL 05 09 19 1353.PDF](#)
[E191706 PHYSP TMTL FINAL 05 09 19 1353 - 19-0243 - ELM STREET LEAD 05-09-2019.GAN000407160.Dat](#)

On Thursday, May 9, 2019, results for the following were released by the Region 4 Laboratory:

Analyses:

Physical Properties (PHYSP)

Total Metals (TMTL)

Project Number: 19-0243

Project Name: Elm Street Lead

City: Atlanta **County:** Fulton **State:** GA

These results were reported by:

Floyd Wellborn (E-mail: Wellborn.Floyd@epa.gov)

If you have questions concerning the laboratory results, please feel free to contact the laboratory personnel shown above as having reported the data. We also encourage you to provide feedback to the Region 4 laboratory by filling out our online (*EPA internal network only*) [Customer Survey Form](#).

These results are for the following Sample Type(s):

Soil (Surface Soil)

PDF DATA RESULTS REPORT FILE ATTACHMENT:

An Adobe Acrobat PDF file is attached to this message that contains final results for the analyses as indicated in the data report.

DATA EXPORT FILE ATTACHMENT:

If attached, data export files will be tab delimited ASCII text files contained in a file that has been formatted using the ZIP archiving format (.Dat extension). Please consult your local computer support personnel if you have problems extracting these files. If you have questions about the data file formats and the information contained in these files, or if you would like to request export files for previously reported data, use the contact information shown below to contact the appropriate person with your concerns. To generate export files for previously reported data we'll need the name of the PDF report file that was attached to the original transmittal message.

For questions concerning this message and attachments, or any other LIMS or data reporting issues, please call the LSASD PC Hotline at 706-355-8825 or send an email to r4lims@epa.gov.

SAMPLE DISPOSAL POLICY:

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

May 9, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0243, Elm Street Lead

FROM: Floyd Wellborn
LSB Inorganic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Chuck Berry

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Physical Properties (PHYSP)		
Physical Properties	EPA 200.2 (Soil)	ISO
Total Metals (TMTL)		
Total Metals	EPA 200.8 (Soil)	ISO
Total Metals	EPA 6010 (Soil)	ISO



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cc: Nardina Turner



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0243, Elm Street Lead

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
ESL-1022B-040919-S3	E191706-01	Surface Soil	4/9/19 10:40	4/26/19 10:15
ESL-1022C-040919-S3	E191706-02	Surface Soil	4/9/19 10:10	4/26/19 10:15
ESL-1022O-040919-S3	E191706-03	Surface Soil	4/9/19 11:00	4/26/19 10:15
ESL-1023B Dup-040919-S3	E191706-04	Surface Soil	4/9/19 12:50	4/26/19 10:15
ESL-1023B-040919-S3	E191706-05	Surface Soil	4/9/19 12:50	4/26/19 10:15
ESL-1023C-040919-S3	E191706-06	Surface Soil	4/9/19 13:20	4/26/19 10:15
ESL-1027B-041919-S3	E191706-07	Surface Soil	4/19/19 14:15	4/26/19 10:15
ESL-1027C Dup-041919-S3	E191706-08	Surface Soil	4/19/19 13:55	4/26/19 10:15
ESL-1027C-041919-S3	E191706-09	Surface Soil	4/19/19 13:55	4/26/19 10:15
ESL-1033B Dup-041919-S3	E191706-10	Surface Soil	4/19/19 12:45	4/26/19 10:15
ESL-1033B-041919-S3	E191706-11	Surface Soil	4/19/19 12:45	4/26/19 10:15
ESL-1033C-041919-S3	E191706-12	Surface Soil	4/19/19 13:00	4/26/19 10:15
ESL-1040A-040919-S3	E191706-13	Surface Soil	4/9/19 09:40	4/26/19 10:15



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
OM-1	Matrix Spike Recovery less than method control limits
OM-2	Matrix Spike Recovery greater than method control limits
OR-2	MRL verification recovery greater than upper control limits.

ACRONYMS AND ABBREVIATIONS

CAS	Chemical Abstracts Service Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
MDL	Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
MRL	Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
TIC	Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO	ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board. Refer to the certificate and scope of accreditation AT-1644 at: http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd
NR	The EPA Region 4 Laboratory has not requested accreditation for this test.



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1022B-040919-S3

Lab ID: E191706-01

Station ID: ESL1022B

Matrix: Surface Soil

Date Collected: 4/9/19 10:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	1.7		mg/kg dry	0.20	5/03/19 15:10	5/08/19 18:03	EPA 200.8
7440-39-3	Barium	210		mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:36	EPA 6010
7440-43-9	Cadmium	0.62		mg/kg dry	0.10	5/03/19 15:10	5/08/19 18:03	EPA 200.8
7440-47-3	Chromium	24		mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:36	EPA 6010
7439-92-1	Lead	130		mg/kg dry	1.0	5/03/19 15:10	5/08/19 15:54	EPA 200.8
7439-97-6	Mercury	0.17	J, QR-2	mg/kg dry	0.080	5/03/19 15:10	5/08/19 18:03	EPA 200.8
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	5/03/19 15:10	5/08/19 18:03	EPA 200.8
7440-22-4	Silver	1.5	U	mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:36	EPA 6010



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1022B-040919-S3

Lab ID: E191706-01

Station ID: ESL1022B

Matrix: Surface Soil

Date Collected: 4/9/19 10:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	98		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1022C-040919-S3

Lab ID: E191706-02

Station ID: ESL1022C

Matrix: Surface Soil

Date Collected: 4/9/19 10:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	1.8		mg/kg dry	0.20	5/03/19 15:10	5/08/19 18:09	EPA 200.8
7440-39-3	Barium	220		mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:39	EPA 6010
7440-43-9	Cadmium	1.1		mg/kg dry	0.099	5/03/19 15:10	5/08/19 18:09	EPA 200.8
7440-47-3	Chromium	26		mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:39	EPA 6010
7439-92-1	Lead	200		mg/kg dry	2.5	5/03/19 15:10	5/08/19 15:59	EPA 200.8
7439-97-6	Mercury	0.22	J, QR-2	mg/kg dry	0.080	5/03/19 15:10	5/08/19 18:09	EPA 200.8
7782-49-2	Selenium	0.48		mg/kg dry	0.40	5/03/19 15:10	5/08/19 18:09	EPA 200.8
7440-22-4	Silver	1.5	U	mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:39	EPA 6010



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Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1022C-040919-S3

Lab ID: E191706-02

Station ID: ESL1022C

Matrix: Surface Soil

Date Collected: 4/9/19 10:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1642941	% Solids	99		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1022O-040919-S3

Lab ID: E191706-03

Station ID: ESL1022O

Matrix: Surface Soil

Date Collected: 4/9/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	0.99		mg/kg dry	0.20	5/03/19 15:10	5/08/19 18:14	EPA 200.8
7440-39-3	Barium	200		mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:42	EPA 6010
7440-43-9	Cadmium	0.26		mg/kg dry	0.10	5/03/19 15:10	5/08/19 18:14	EPA 200.8
7440-47-3	Chromium	28		mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:42	EPA 6010
7439-92-1	Lead	110		mg/kg dry	1.0	5/03/19 15:10	5/08/19 16:05	EPA 200.8
7439-97-6	Mercury	0.11	J, QR-2	mg/kg dry	0.080	5/03/19 15:10	5/08/19 18:14	EPA 200.8
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	5/03/19 15:10	5/08/19 18:14	EPA 200.8
7440-22-4	Silver	1.5	U	mg/kg dry	1.5	5/03/19 12:38	5/07/19 12:42	EPA 6010



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1022O-040919-S3

Lab ID: E191706-03

Station ID: ESL1022O

Matrix: Surface Soil

Date Collected: 4/9/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1642941	% Solids	98		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1023B Dup-040919-S3

Lab ID: E191706-04

Station ID: ESL1023B

Matrix: Surface Soil

Date Collected: 4/9/19 12:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	10		mg/kg dry	0.20	5/03/19 15:10	5/08/19 18:20	EPA 200.8
7440-39-3	Barium	420		mg/kg dry	2.5	5/03/19 12:38	5/07/19 12:45	EPA 6010
7440-43-9	Cadmium	2.6		mg/kg dry	0.10	5/03/19 15:10	5/08/19 18:20	EPA 200.8
7440-47-3	Chromium	29		mg/kg dry	2.5	5/03/19 12:38	5/07/19 12:45	EPA 6010
7439-92-1	Lead	930		mg/kg dry	10	5/03/19 15:10	5/08/19 16:10	EPA 200.8
7439-97-6	Mercury	0.21	J, QR-2	mg/kg dry	0.080	5/03/19 15:10	5/08/19 18:20	EPA 200.8
7782-49-2	Selenium	0.50		mg/kg dry	0.40	5/03/19 15:10	5/08/19 18:20	EPA 200.8
7440-22-4	Silver	2.5	U	mg/kg dry	2.5	5/03/19 12:38	5/07/19 12:45	EPA 6010



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Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1023B Dup-040919-S3

Lab ID: E191706-04

Station ID: ESL1023B

Matrix: Surface Soil

Date Collected: 4/9/19 12:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1642941	% Solids	98		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



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Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1023B-040919-S3

Lab ID: E191706-05

Station ID: ESL1023B

Matrix: Surface Soil

Date Collected: 4/9/19 12:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	9.9		mg/kg dry	0.20	5/03/19 15:10	5/08/19 18:25	EPA 200.8
7440-39-3	Barium	440		mg/kg dry	2.5	5/03/19 12:38	5/07/19 12:48	EPA 6010
7440-43-9	Cadmium	2.9		mg/kg dry	0.099	5/03/19 15:10	5/08/19 18:25	EPA 200.8
7440-47-3	Chromium	31		mg/kg dry	2.5	5/03/19 12:38	5/07/19 12:48	EPA 6010
7439-92-1	Lead	980		mg/kg dry	9.9	5/03/19 15:10	5/08/19 16:16	EPA 200.8
7439-97-6	Mercury	0.33	J, QR-2	mg/kg dry	0.080	5/03/19 15:10	5/08/19 18:25	EPA 200.8
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	5/03/19 15:10	5/08/19 18:25	EPA 200.8
7440-22-4	Silver	2.5	U	mg/kg dry	2.5	5/03/19 12:38	5/07/19 12:48	EPA 6010



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Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1023B-040919-S3

Lab ID: E191706-05

Station ID: ESL1023B

Matrix: Surface Soil

Date Collected: 4/9/19 12:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1642941	% Solids	98		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1023C-040919-S3

Lab ID: E191706-06

Station ID: ESL1023C

Matrix: Surface Soil

Date Collected: 4/9/19 13:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	7.8		mg/kg dry	0.20	5/03/19 15:10	5/08/19 18:42	EPA 200.8
7440-39-3	Barium	480	J, QM-1	mg/kg dry	2.5	5/03/19 15:10	5/07/19 12:51	EPA 6010
7440-43-9	Cadmium	3.4		mg/kg dry	0.10	5/03/19 15:10	5/08/19 18:42	EPA 200.8
7440-47-3	Chromium	29		mg/kg dry	2.5	5/03/19 15:10	5/07/19 12:51	EPA 6010
7439-92-1	Lead	890		mg/kg dry	10	5/03/19 15:10	5/08/19 16:33	EPA 200.8
7439-97-6	Mercury	0.20	J, QR-2	mg/kg dry	0.080	5/03/19 15:10	5/08/19 18:42	EPA 200.8
7782-49-2	Selenium	0.50		mg/kg dry	0.40	5/03/19 15:10	5/08/19 18:42	EPA 200.8
7440-22-4	Silver	2.5	U	mg/kg dry	2.5	5/03/19 15:10	5/07/19 12:51	EPA 6010



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1023C-040919-S3

Lab ID: E191706-06

Station ID: ESL1023C

Matrix: Surface Soil

Date Collected: 4/9/19 13:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	98		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



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D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1027B-041919-S3

Lab ID: E191706-07

Station ID: ESL1027B

Matrix: Surface Soil

Date Collected: 4/19/19 14:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	3.0		mg/kg dry	0.20	5/03/19 15:10	5/08/19 18:59	EPA 200.8
7440-39-3	Barium	160		mg/kg dry	0.99	5/03/19 15:10	5/07/19 13:09	EPA 6010
7440-43-9	Cadmium	0.56		mg/kg dry	0.099	5/03/19 15:10	5/08/19 18:59	EPA 200.8
7440-47-3	Chromium	21		mg/kg dry	0.99	5/03/19 15:10	5/07/19 13:09	EPA 6010
7439-92-1	Lead	340		mg/kg dry	4.9	5/03/19 15:10	5/08/19 16:50	EPA 200.8
7439-97-6	Mercury	0.16	J, QR-2	mg/kg dry	0.079	5/03/19 15:10	5/08/19 18:59	EPA 200.8
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	5/03/19 15:10	5/08/19 18:59	EPA 200.8
7440-22-4	Silver	0.99	U	mg/kg dry	0.99	5/03/19 15:10	5/07/19 13:09	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1027B-041919-S3

Lab ID: E191706-07

Station ID: ESL1027B

Matrix: Surface Soil

Date Collected: 4/19/19 14:15

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	97		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1027C Dup-041919-S3

Lab ID: E191706-08

Station ID: ESL1027C

Matrix: Surface Soil

Date Collected: 4/19/19 13:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	4.6		mg/kg dry	0.20	5/03/19 15:10	5/08/19 19:05	EPA 200.8
7440-39-3	Barium	320		mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:12	EPA 6010
7440-43-9	Cadmium	1.4		mg/kg dry	0.099	5/03/19 15:10	5/08/19 19:05	EPA 200.8
7440-47-3	Chromium	22		mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:12	EPA 6010
7439-92-1	Lead	710		mg/kg dry	5.0	5/03/19 15:10	5/08/19 16:55	EPA 200.8
7439-97-6	Mercury	0.27	J, QR-2	mg/kg dry	0.079	5/03/19 15:10	5/08/19 19:05	EPA 200.8
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	5/03/19 15:10	5/08/19 19:05	EPA 200.8
7440-22-4	Silver	2.5	U	mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:12	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1027C Dup-041919-S3

Lab ID: E191706-08

Station ID: ESL1027C

Matrix: Surface Soil

Date Collected: 4/19/19 13:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	99		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1027C-041919-S3

Lab ID: E191706-09

Station ID: ESL1027C

Matrix: Surface Soil

Date Collected: 4/19/19 13:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	5.0		mg/kg dry	0.20	5/03/19 15:10	5/08/19 19:10	EPA 200.8
7440-39-3	Barium	330		mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:15	EPA 6010
7440-43-9	Cadmium	1.5		mg/kg dry	0.10	5/03/19 15:10	5/08/19 19:10	EPA 200.8
7440-47-3	Chromium	22		mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:15	EPA 6010
7439-92-1	Lead	740		mg/kg dry	5.0	5/03/19 15:10	5/08/19 17:01	EPA 200.8
7439-97-6	Mercury	0.50	J, QR-2	mg/kg dry	0.080	5/03/19 15:10	5/08/19 19:10	EPA 200.8
7782-49-2	Selenium	0.47		mg/kg dry	0.40	5/03/19 15:10	5/08/19 19:10	EPA 200.8
7440-22-4	Silver	2.5	U	mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:15	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1027C-041919-S3

Lab ID: E191706-09

Station ID: ESL1027C

Matrix: Surface Soil

Date Collected: 4/19/19 13:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	98		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1033B Dup-041919-S3

Lab ID: E191706-10

Station ID: ESL1033B

Matrix: Surface Soil

Date Collected: 4/19/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	1.5		mg/kg dry	0.20	5/03/19 15:10	5/08/19 19:27	EPA 200.8
7440-39-3	Barium	170		mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:17	EPA 6010
7440-43-9	Cadmium	0.31		mg/kg dry	0.099	5/03/19 15:10	5/08/19 19:27	EPA 200.8
7440-47-3	Chromium	26		mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:17	EPA 6010
7439-92-1	Lead	160		mg/kg dry	2.5	5/03/19 15:10	5/08/19 17:07	EPA 200.8
7439-97-6	Mercury	0.18	J, QR-2	mg/kg dry	0.079	5/03/19 15:10	5/08/19 19:27	EPA 200.8
7782-49-2	Selenium	0.43		mg/kg dry	0.39	5/03/19 15:10	5/08/19 19:27	EPA 200.8
7440-22-4	Silver	1.5	U	mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:17	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1033B Dup-041919-S3

Lab ID: E191706-10

Station ID: ESL1033B

Matrix: Surface Soil

Date Collected: 4/19/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1642941	% Solids	100		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1033B-041919-S3

Lab ID: E191706-11

Station ID: ESL1033B

Matrix: Surface Soil

Date Collected: 4/19/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	1.2		mg/kg dry	0.20	5/03/19 15:10	5/08/19 19:33	EPA 200.8
7440-39-3	Barium	180		mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:20	EPA 6010
7440-43-9	Cadmium	0.38		mg/kg dry	0.099	5/03/19 15:10	5/08/19 19:33	EPA 200.8
7440-47-3	Chromium	28		mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:20	EPA 6010
7439-92-1	Lead	190		mg/kg dry	2.5	5/03/19 15:10	5/08/19 17:12	EPA 200.8
7439-97-6	Mercury	0.19	J, QR-2	mg/kg dry	0.079	5/03/19 15:10	5/08/19 19:33	EPA 200.8
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	5/03/19 15:10	5/08/19 19:33	EPA 200.8
7440-22-4	Silver	1.5	U	mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:20	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1033B-041919-S3

Lab ID: E191706-11

Station ID: ESL1033B

Matrix: Surface Soil

Date Collected: 4/19/19 12:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	100		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1033C-041919-S3

Lab ID: E191706-12

Station ID: ESL1033C

Matrix: Surface Soil

Date Collected: 4/19/19 13:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7440-38-2	Arsenic	1.6		mg/kg dry	0.20	5/03/19 15:10	5/08/19 19:39	EPA 200.8
7440-39-3	Barium	260		mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:26	EPA 6010
7440-43-9	Cadmium	0.69		mg/kg dry	0.099	5/03/19 15:10	5/08/19 19:39	EPA 200.8
7440-47-3	Chromium	27		mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:26	EPA 6010
7439-92-1	Lead	340		mg/kg dry	5.0	5/03/19 15:10	5/08/19 17:18	EPA 200.8
7439-97-6	Mercury	0.24	J, QR-2	mg/kg dry	0.079	5/03/19 15:10	5/08/19 19:39	EPA 200.8
7782-49-2	Selenium	0.65		mg/kg dry	0.40	5/03/19 15:10	5/08/19 19:39	EPA 200.8
7440-22-4	Silver	1.5	U	mg/kg dry	1.5	5/03/19 15:10	5/07/19 13:26	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1033C-041919-S3

Lab ID: E191706-12

Station ID: ESL1033C

Matrix: Surface Soil

Date Collected: 4/19/19 13:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	100		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1040A-040919-S3

Lab ID: E191706-13

Station ID: ESL1040A

Matrix: Surface Soil

Date Collected: 4/9/19 9:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-38-2	Arsenic	6.6		mg/kg dry	0.20	5/03/19 15:10	5/08/19 19:44	EPA 200.8
7440-39-3	Barium	310		mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:29	EPA 6010
7440-43-9	Cadmium	1.4		mg/kg dry	0.10	5/03/19 15:10	5/08/19 19:44	EPA 200.8
7440-47-3	Chromium	25		mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:29	EPA 6010
7439-92-1	Lead	800		mg/kg dry	5.0	5/03/19 15:10	5/08/19 17:35	EPA 200.8
7439-97-6	Mercury	0.31	J, QM-2, QR-2	mg/kg dry	0.080	5/03/19 15:10	5/08/19 19:44	EPA 200.8
7782-49-2	Selenium	0.68	J, QM-1	mg/kg dry	0.40	5/03/19 15:10	5/08/19 19:44	EPA 200.8
7440-22-4	Silver	2.5	U	mg/kg dry	2.5	5/03/19 15:10	5/07/19 13:29	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties

Project: 19-0243, Elm Street Lead

Sample ID: ESL-1040A-040919-S3

Lab ID: E191706-13

Station ID: ESL1040A

Matrix: Surface Soil

Date Collected: 4/9/19 9:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1642941	% Solids	99		%	0.0	5/01/19 13:51	5/02/19 10:25	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1905016 - M 200.2 Metals Soil

Blank (1905016-BLK1)

Prepared: 05/03/19 Analyzed: 05/07/19

EPA 6010

Barium	U	0.50	mg/kg dry							U
Chromium	U	0.50	"							U
Silver	U	0.50	"							U

Blank (1905016-BLK2)

Prepared: 05/03/19 Analyzed: 05/07/19

EPA 6010

Barium	U	0.50	mg/kg dry							U
Chromium	U	0.50	"							U
Silver	U	0.50	"							U

LCS (1905016-BS1)

Prepared: 05/03/19 Analyzed: 05/07/19

EPA 6010

Barium	49.907	0.50	mg/kg dry	50.000		99.8	85-115			
Chromium	49.493	0.50	"	50.000		99.0	85-115			
Silver	9.2470	0.50	"	10.000		92.5	85-115			

Matrix Spike (1905016-MS1)

Source: E191706-06

Prepared: 05/03/19 Analyzed: 05/07/19

EPA 6010

Barium	518.05	2.5	mg/kg dry	49.485	483.01	70.8	75-125			QM-1
Chromium	74.788	2.5	"	49.485	28.728	93.1	75-125			
Silver	11.184	2.5	"	9.8971	2.2341	90.4	75-125			

Matrix Spike (1905016-MS2)

Source: E191706-13

Prepared: 05/03/19 Analyzed: 05/07/19

EPA 6010

Barium	362.97	2.5	mg/kg dry	49.358	314.71	97.8	75-125			
Chromium	71.579	2.5	"	49.358	25.389	93.6	75-125			
Silver	10.363	2.5	"	9.8717	0.96816	95.2	75-125			

Matrix Spike Dup (1905016-MSD1)

Source: E191706-06

Prepared: 05/03/19 Analyzed: 05/07/19

EPA 6010

Barium	533.45	2.5	mg/kg dry	49.771	483.01	101	75-125	2.93	20	
Chromium	75.310	2.5	"	49.771	28.728	93.6	75-125	0.696	20	
Silver	11.475	2.5	"	9.9542	2.2341	92.8	75-125	2.57	20	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1905016 - M 200.2 Metals Soil

Matrix Spike Dup (1905016-MSD2)

Source: E191706-13

Prepared: 05/03/19 Analyzed: 05/07/19

EPA 6010

Barium	364.03	2.5	mg/kg dry	49.300	314.71	100	75-125	0.293	20	
Chromium	70.621	2.5	"	49.300	25.389	91.7	75-125	1.35	20	
Silver	9.5345	2.5	"	9.8600	0.96816	86.9	75-125	8.33	20	

MRL Verification (1905016-PS1)

Prepared: 05/03/19 Analyzed: 05/07/19

EPA 6010

Barium	0.48869	0.50	mg/kg dry	0.50000		97.7	70-130			MRL-3, U
Chromium	0.52478	0.50	"	0.50000		105	70-130			MRL-3
Silver	0.50904	0.50	"	0.50000		102	70-130			MRL-3

Batch 1905017 - M 200.2 Metals Soil

Blank (1905017-BLK1)

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	U	0.10	mg/kg dry							U
Cadmium	U	0.050	"							U
Lead	U	0.10	"							U
Mercury	U	0.040	"							U
Selenium	U	0.20	"							U

Blank (1905017-BLK2)

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	U	0.10	mg/kg dry							U
Cadmium	U	0.050	"							U
Lead	0.23022	0.10	"							B-3
Mercury	U	0.040	"							U
Selenium	U	0.20	"							U

LCS (1905017-BS1)

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	52.317	1.2	mg/kg dry	50.000		105	85-115			
Cadmium	21.113	0.62	"	20.000		106	85-115			
Lead	107.20	1.2	"	100.00		107	85-115			
Mercury	5.3761	0.50	"	5.0000		108	85-115			
Selenium	104.35	2.5	"	100.00		104	85-115			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1905017 - M 200.2 Metals Soil

Matrix Spike (1905017-MS1)

Source: E191706-06

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	55.239	9.9	mg/kg dry	49.485	9.4314	92.6	70-130			
Cadmium	22.410	4.9	"	19.794	2.8726	98.7	70-130			
Lead	984.76	9.9	"	98.971	891.39	94.3	70-130			XM-1
Mercury	5.4796	4.0	"	4.9485	U	111	70-130			
Selenium	76.012	20	"	98.971	U	76.8	70-130			

Matrix Spike (1905017-MS2)

Source: E191706-13

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	47.826	9.9	mg/kg dry	49.358	7.7427	81.2	70-130			
Cadmium	21.526	4.9	"	19.743	U	109	70-130			
Lead	941.04	9.9	"	98.717	796.07	147	70-130			XM-1
Mercury	6.2306	3.9	"	4.9358	U	126	70-130			
Selenium	73.852	20	"	98.717	U	74.8	70-130			

Matrix Spike (1905017-MS3)

Source: E191706-06RE1

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	52.999	2.5	mg/kg dry	49.485	7.8015	91.3	70-130			
Cadmium	24.883	1.2	"	19.794	3.3544	109	70-130			
Lead	1001.0	2.5	"	98.971	836.92	166	70-130			XM-1
Mercury	5.8444	0.99	"	4.9485	U	118	70-130			
Selenium	71.743	4.9	"	98.971	U	72.5	70-130			

Matrix Spike (1905017-MS4)

Source: E191706-13RE1

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	49.909	2.5	mg/kg dry	49.358	6.5935	87.8	70-130			
Cadmium	22.912	1.2	"	19.743	1.3558	109	70-130			
Lead	939.42	2.5	"	98.717	752.87	189	70-130			XM-1
Mercury	5.9638	0.99	"	4.9358	U	121	70-130			
Selenium	68.344	4.9	"	98.717	U	69.2	70-130			QM-1

Matrix Spike Dup (1905017-MSD1)

Source: E191706-06

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	52.971	10	mg/kg dry	49.771	9.4314	87.5	70-130	4.19	20	
Cadmium	25.155	5.0	"	19.908	2.8726	112	70-130	11.5	20	
Lead	972.29	10	"	99.542	891.39	81.3	70-130	1.27	20	XM-1
Mercury	6.3775	4.0	"	4.9771	U	128	70-130	15.1	20	
Selenium	82.733	20	"	99.542	U	83.1	70-130	8.47	20	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1905017 - M 200.2 Metals Soil

Matrix Spike Dup (1905017-MSD2)

Source: E191706-13

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	51.454	9.9	mg/kg dry	49.300	7.7427	88.7	70-130	7.31	20	
Cadmium	20.195	4.9	"	19.720	U	102	70-130	6.38	20	
Lead	905.15	9.9	"	98.600	796.07	111	70-130	3.89	20	XM-1
Mercury	7.2581	3.9	"	4.9300	U	147	70-130	15.2	20	QM-2
Selenium	81.155	20	"	98.600	U	82.3	70-130	9.42	20	

Matrix Spike Dup (1905017-MSD3)

Source: E191706-06RE1

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	53.892	2.5	mg/kg dry	49.771	7.8015	92.6	70-130	1.67	20	
Cadmium	25.079	1.2	"	19.908	3.3544	109	70-130	0.782	20	
Lead	1022.1	2.5	"	99.542	836.92	186	70-130	2.08	20	XM-1
Mercury	6.1612	1.0	"	4.9771	U	124	70-130	5.28	20	
Selenium	73.194	5.0	"	99.542	U	73.5	70-130	2.00	20	

Matrix Spike Dup (1905017-MSD4)

Source: E191706-13RE1

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	50.572	2.5	mg/kg dry	49.300	6.5935	89.2	70-130	1.32	20	
Cadmium	22.223	1.2	"	19.720	1.3558	106	70-130	3.05	20	
Lead	918.67	2.5	"	98.600	752.87	168	70-130	2.23	20	XM-1
Mercury	6.2917	0.99	"	4.9300	U	128	70-130	5.35	20	
Selenium	73.819	4.9	"	98.600	U	74.9	70-130	7.70	20	

MRL Verification (1905017-PS1)

Prepared: 05/03/19 Analyzed: 05/08/19

EPA 200.8

Arsenic	0.12212	0.10	mg/kg dry	0.10000		122	65-135			MRL-3
Cadmium	0.053637	0.050	"	0.050000		107	65-135			MRL-3
Lead	0.11298	0.10	"	0.10000		113	65-135			MRL-3
Mercury	0.15935	0.040	"	0.080000		199	65-135			MRL-3, QR-2
Selenium	0.21850	0.20	"	0.20000		109	65-135			MRL-3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Physical Properties (PHYSP) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1905015 - M % Solids

Duplicate (1905015-DUP1)

Source: E191706-01

Prepared: 05/01/19 Analyzed: 05/02/19

EPA 200.2

% Solids	98.438	0.0	%		98.498			0.0609	10	
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 19-0243

Project: 19-0243, Elm Street Lead - Reported by Floyd Wellborn

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
B-3	Level in blank does not impact data quality
MRL-3	MRL verification for Soil matrix
QM-1	Matrix Spike Recovery less than method control limits
QM-2	Matrix Spike Recovery greater than method control limits
QR-2	MRL verification recovery greater than upper control limits.
XM-1	Sample background/spike ratio higher than method evaluation criteria